

REMARKS

Submitted herewith is a Declaration signed by the inventor, who is an expert in the field of regional anesthesia.

Claims 2, 6 and 7 have been rejected as being obvious over the cited prior art Berlant 5,070,862; Hadzic et al 5,830,151; Brenman et al 4,510,939 and Apple 6,098,854. It is submitted that the examiner's rejection of these claims is a classic case of hindsight reconstruction of the claimed invention. None of the references recognize the long standing problem to be solved as set forth in paragraphs 3-5 of the Hogan Declaration or propose a solution.

The present invention is a method and apparatus for anesthetizing a peripheral nerve. A stimulating electrode is fastened to the finger of the clinician to enable palpation in the vicinity of the nerve until a response is detected. This locates the puncture cite for the anesthetizing needle. As explained in paragraph 6 of the Hogan Declaration, this avoids the need for multiple punctures to locate the nerve.

Hadzic et al is the only reference which discloses a method for locating a nerve for the purpose of anesthetizing it. The apparatus does not employ an electrode on the clinician's finger, but instead, uses the needle as the stimulation electrode after the needle has punctured the skin. As explained in paragraphs [0003] and [0004] of the present application, and paragraph 8 of the Hogan Declaration, the use of the needle as a stimulating electrode is well known and works well once the clinician has located a puncture cite near (approximately 1 cm) the nerve. The present invention is a method and apparatus that enables this to be achieved. In other words, the present invention is a device used by the clinician in an additional step to locate a proper puncture cite and then the device disclosed in Hadzic et al may be used to more precisely locate the depth of the nerve.

None of the remaining references deal with the objective of locating a nerve for the purpose of anesthetization. They are selected with hindsight in an effort to reconstruct the invention.

Brenman et al discloses a glove in which electrodes are mounted on the fingers and thumb for the purpose of transferring electrical energy to tissues. Examples given are stimulating a nerve in the prostate gland or anal area. It does not disclose a separate electrode that can be fastened to the finger of a clinician's bare or gloved hand and it says nothing about anesthetizing a nerve. The cost of manufacturing this device makes it impractical for use in the method of the present invention (Hogan Declaration ¶9).

Berlant discloses a glove in which the palm and fingers are an electrode for mildly stimulating nerves as part of a massage. This large electrode would be inappropriate for locating a nerve, and of course, that is not its purpose (Hogan Declaration ¶10).

Apple describes a finger tip protective device for sewing and quilting which includes a hard metal or plastic disc which rests over the tip of a finger and a separate double sided adhesive pad for holding it in place. This is a totally non-analogous art and it suggests nothing about providing an electrode that can be fastened to the finger tip of a clinician with an adhesive membrane.

The pending claims are believed to recite subject matter which is patentable over the prior art. Claim 2 is limited to a nerve locator having a second electrode attached to the finger of a clinician with an adhesive membrane. The only nerve locators in the cited prior art use a needle as the locating electrode, or form an electrode as an integral part of a glove. The concept of a separate electrode suitable for attachment to the end of a clinician's finger is missing in the prior art, as is the concept of attaching it with an adhesive membrane. The concept of using a separate electrode suitable for the end of a finger is not found in the prior art, and absent this concept, the Apple double-sided adhesive pad is of no materiality. There is nothing in Apple suggesting that the adhesive pad briefly described therein has any other use, much less a use to hold a nerve stimulating electrode in place.

Claim 6 recites a method for anesthetizing a nerve in which an electrode is placed on the end of a finger. The only nerve anesthetizing method disclosed in the

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prior art uses the inserted needle as a locating electrode – not the clinician's finger as taught by the present invention. As indicated above, the present invention is an improvement to the Hadzic et al method in that it enables a puncture cite to be located before the skin is punctured.

Claim 7 is limited to a nerve stimulating electrode having a conductive layer that is attached to the distal finger pad of a clinician with an adhesive membrane. No such structure is shown or suggested by the prior art which discloses stimulation electrodes built into gloves or stimulation electrodes in the form of a needle.

Favorable reconsideration and allowance of this application is respectfully requested.

The Commissioner is authorized to charge any fees under 37 CFR § 1.17 that may be due on this application to Deposit Account 17-0055. The Commissioner is also authorized to treat this amendment and any future reply in this matter requiring a petition for an extension of time as incorporating a petition for extension of time for the appropriate length of time as provided by 37 CFR § 136(a)(3).

Respectfully submitted,
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